

## APPARATUS FOR MAKING MULTILAYER OPTICAL FILMS

### Abstract of the Disclosure

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Methods and apparatuses are provided for the manufacture of coextruded polymeric multilayer optical films. The multilayer optical films have an ordered arrangement of layers of two or more materials having particular layer thicknesses and a prescribed layer thickness gradient throughout the multilayer optical stack.

- 10 The methods and apparatuses described allow improved control over individual layer thicknesses, layer thickness gradients, indices of refraction, interlayer adhesion, and surface characteristics of the optical films. The methods and apparatuses described are useful for making interference polarizers, mirrors, and colored films that are optically effective over diverse portions of the ultraviolet,
- 15 visible, and infrared spectra.